

ANNUAL REPORT

1967



"Despite the pessimism prevailing in certain quarters regarding the industry's future, we are optimistic about the development of the atomic age and the resultant fuel requirements."

> - STEPHEN B. ROMAN, Interim Report to Shareholders, Oct. 1959



The President and Directors of

# DENISON MINES LIMITED

are pleased to present the Annual Report to Shareholders for the year ended December 31, 1967

# DENISON MINES LIMITED

ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 1967

#### OFFICERS AND DIRECTORS

#### OFFICERS

STEPHEN B. ROMAN, K.C.S.G., LL.D., Chairman and President

JOHN KOSTUIK, B.SC., Vice-President and General Manager

J. G. PICKARD, Vice-President Industrial Division

E. B. McConkey, c.a., Vice-President Finance and Treasurer

JOHN C. PUHKY, Secretary



#### DIRECTORS

J. WILSON BERRY

JEAN BODSON

CHARLES F. W. BURNS

HON. D. KEITH DAVEY

HON. GEORGE A. DREW, P.C., Q.C., C.C., LL.D.

F. H. Jowsey

JOHN KOSTUIK, B.SC.

E. B. McConkey, C.A.

Louis R. Perini

J. G. PICKARD

JOHN C. PUHKY

ANTHONY ROMAN

STEPHEN B. ROMAN, K.C.S.G., LL.D.

HON. HARRY A. WILLIS, Q.C.

B. E. WILLOUGHBY J





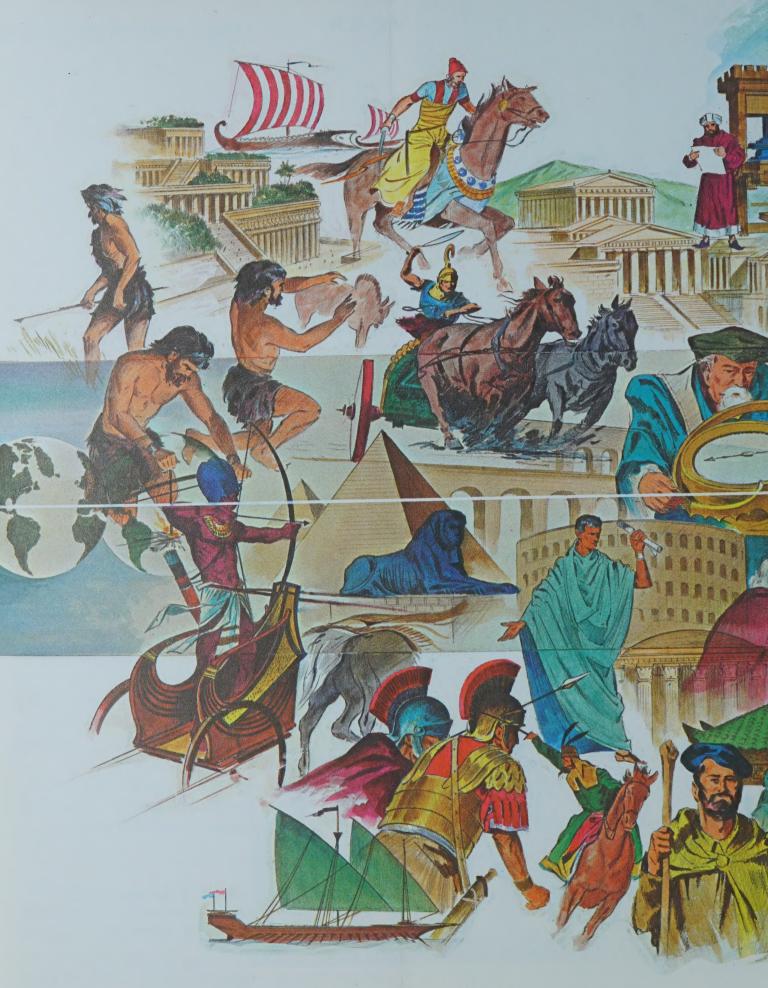
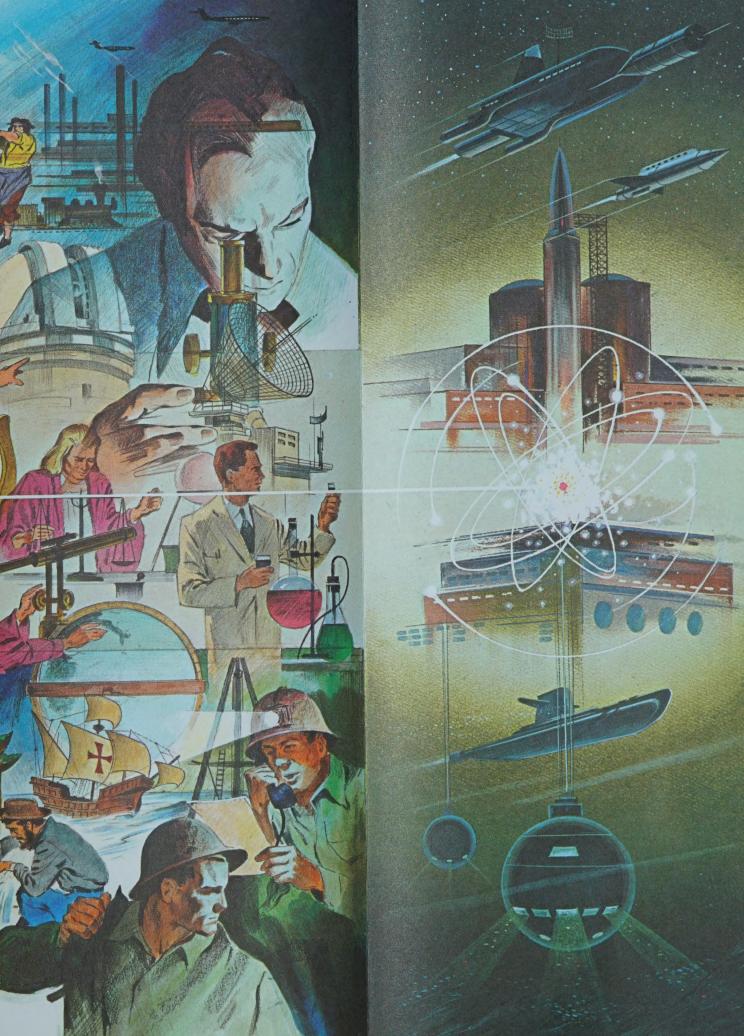


Illustration: Forged in the flaming crucible of creation by the forces of the universe the uranium atom has emerged from its rock-bound chrysalis to serve mankind.



# DENISON MINES LIMITED

ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 1967

#### HEAD OFFICE

4 King Street West, Toronto, Ontario

#### MINE OFFICE

Elliot Lake, Ontario

#### VANCOUVER OFFICE

402 West Pender Street, Vancouver, British Columbia

#### DENISON MINES (EUROPEAN) LIMITED

17 Place des Etats-Unis, Paris, France

#### DENISON MINES (U.S.) INCORPORATED

1575 Sherman Street, Denver, Colorado, U.S.A.

#### SOLICITORS

Fraser, Beatty, Tucker, McIntosh & Stewart, Toronto, Ontario

#### AUDITORS

Eddis & Associates, Toronto, Ontario

### BANKERS

The Royal Bank of Canada, Toronto, Ontario

### REGISTRAR AND TRANSFER AGENT

Guaranty Trust Company of Canada, Toronto, Ontario; Montreal, P.Q.

### SUBSIDIARY COMPANY OF DENISON MINES LIMITED

LAKE ONTARIO CEMENT LIMITED

2 Carlton Street, Toronto, Ontario

Division

PREMIER BUILDING MATERIALS
132 Toro Road, Downsview, Ontario

Division

RYAN BUILDERS SUPPLIES 210 Detroit Street, Windsor, Ontario

Wholly-owned Subsidiary

ROCHESTER PORTLAND CEMENT CORP. 361 Boxart Street, Rochester, N.Y.

Affiliated Company

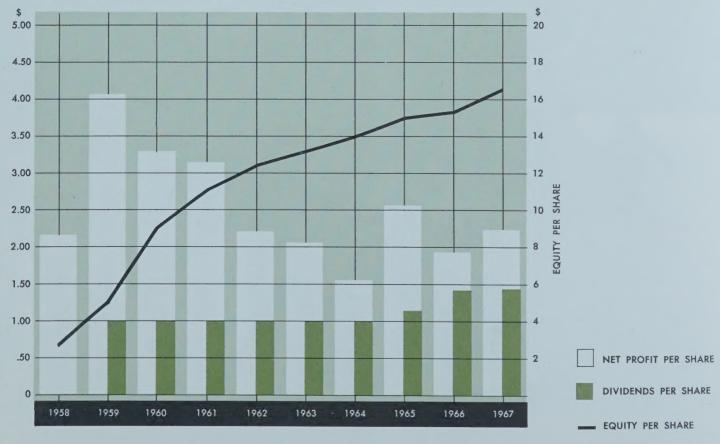
PRIMEAU ARGO BLOCK CO., LIMITED Brockport Road at Belfield, Rexdale, Ontario

# HIGHLIGHTS FOR THE YEAR

ENDED DECEMBER 31, 1967

Net Profit	\$ 9,905,348
Net per share	\$2.21
Shareholders' Equity	\$74,607,487
Equity per share	\$16.67

#### TEN YEAR CHART OF FINANCIAL PERFORMANCE

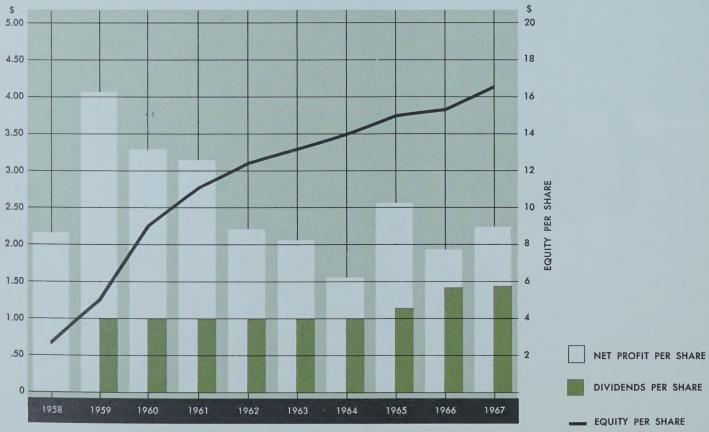


## HIGHLIGHTS FOR THE YEAR

ENDED DECEMBER 31, 1967

Net Profit	\$ 9,905,348
Net per share	\$2.21
Shareholders' Equity	\$74,607,487
Equity per share	\$16.67

# TEN YEAR CHART OF FINANCIAL PERFORMANCE



# President's Report

To The Shareholders:

I am pleased to report on a year of progress and accomplishment for your Company and to submit the Annual Report for the year ended December 31, 1967.

The net profit resulting from operations for the year was \$9,905,348 or \$2.21 per share. Dividends paid during 1967, the second full year since the quarterly dividend policy payment came into effect, totalled \$1.40 per share. Since your Company declared its first dividend eight years ago a total of \$44,947,327 has been paid to its shareholders. Shareholders' equity rose to a record level of \$74,607,487, equal to \$16.67 per share.

During 1967 uranium earnings were maintained, oil income and revenue from investments increased while cement earnings declined.

The most outstanding development during the year, resulting from sustained and determined effort by your management, was the signing of major long term uranium sales contracts with eight Japanese power companies. These contracts require delivery of not less



than 21,000,000 pounds of  $U_3O_8$  over a ten year period. This is the largest private commercial sale of uranium in the history of the nuclear industry, but covers only part of Japan's growing uranium requirements for the next decade.

We are confident that major sales will result from our present negotiations with potential customers in other countries.

It has long been the conviction of your management that the need for Canadian uranium for peaceful purposes soon would place the nation's uranium-producing industry on a strong and enduring base. The remarkable upsurge in world demand, now so evident, continues to outpace the estimates of the best informed private and national agen-

cies. The magnitude of the demand is demonstrated by recent estimates released by the United States Atomic Energy Commission which indicate a world requirement of 500,000 tons of  $U_3O_8$  in the period up to 1980 — only slightly more than a decade from now. It is significant to note that half of this requirement will be in the United States, where uranium has truly earned its position as an economical and competitive fuel. As an illustration of the need for early enlargement of North American production capabilities the annual U<sub>3</sub>O<sub>8</sub> requirement in the United States in the year 1980 is expected to be 40,000 tons, or three times the current capability of that country. The massive effort needed to satisfy world demand in the seventies and eighties must include exploration for new ore deposits, expansion of ore reserves, development of new mines and expansion of mining and processing facilities. It is truly an inspiring and monumental task.

Not surprisingly, governments are reexamining their policies. In the United States the Atomic Energy Commission is reconsidering its policy on restriction of uranium imports for domestic use. The possible date for removal of restrictions now is 1973, two years earlier than originally planned and consideration is being given to earlier alternative dates. It is to be expected that the Canadian government, too, must soon re-examine its uranium export policies. On this matter I can only reiterate the view that your Company has expressed for several years: the buying nation must be responsible for effective control of the use of uranium for peaceful purposes.

We have often emphasized that producers with established plants coupled with large ore reserves have a special opportunity to contribute to the stability of the uranium market by their ability to guarantee continuity of supply of uranium. We believe that our policy of preparedness enables us, through long-term contracts, to offer advantages to industrial consumers which will effectively contribute to the stability of the market, both in price and in supply. One of our objectives during the year has been to foster active communication between the utility industry and the mining industry to dispel misconceptions about uranium supply and to stress that orebodies, to their fullest extent, must be developed in time to satisfy demand. There must be a continuing dialogue between consumer and producer if there is to be a real awareness of the dynamic supply and demand factors that affect

an illustration, a recent study by the Canadian Nuclear Association indicates that a critical shortage of production capability could exist by 1973. As a matter of self interest industrial consumers must recognize the urgent need to stimulate the expansion of production capabilities through their purchasing policies. We believe that there is now an increasing realization that consumers and producers must share the responsibility for ensuring that uranium remains an economical fuel in good supply.

At the Denison mine we are pressing forward with a program of modernization and operations improvement designed to strengthen our competitive position and our production capability. These efforts reflect our determination to meet the challenges of an enlarging market to maximum advantage.

It is our belief that the sharply rising demand forecast for uranium in the 1970's makes imperative a maximum exploration effort by the mining industry to help ensure the stability in price and supply needed for the orderly growth and acceptance of uranium as economical fuel. As a long-term producer it is not in the interest of your Company or in the best interest of the electric power industry to take a short-term view. A primary objective of Denison's explora-



tion efforts is to strengthen our contribution to the uranium market by further augmenting the stable supply of uranium at prices advantageous to consumer and producer.

Earnings from our investment in oil continued to grow, resulting in an income of \$1,884,000 this year after all royalties and costs except depletion. Proven reserves now stand at 32,388,000 barrels and our gas reserves now total 25.8 billion cubic feet, up 23% from the previous year. We expect a continuation of this favourable trend through the next year.

Numerous strikes in the construction industry had an adverse effect on the 1967 earnings of Lake Ontario Cement Limited, a 55%-owned subsidiary. Although the contribution of Lake Ontario for the year was lower there was encouraging progress in the last half of 1967 when the company generated a net profit despite the continued influence of some strikes. Next year offers better prospects.

Canada's abundant natural resources have been a source of strength in the development of our national economy and it is only right that we should build our country from this base, and foster the advantageous development of our heritage. Primary development of Canada's resources creates employment,

opens vast new areas of our land, and leads to the development of a broader industrial base.

We are concerned about proposed modifications in the taxation system which would seriously reduce the flow of new investment into the development of mineral resources. They would remove those incentives which have been so effective in strengthening the Canadian economic position and replace them with a system of government subsidies. It is our view that this legislative approach would strike at the very roots of incentive for private investment and development in our nation. It would surely result in many of our great mineral resources remaining unproductively locked in our soil.

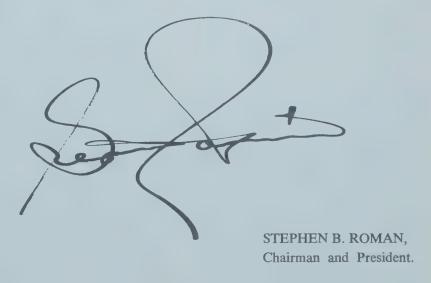
We, with other business organizations, are concerned about any action that would replace long-term growth policies with the legislation of expediency. We look forward to a fuller recognition by

the federal government that the national interest is best served by individual incentive in an economic environment that does not stifle free enterprise.

We enter Canada's second century with confidence that Canadians will energetically and intelligently meet the challenges of a growing, vigorous nation. We will share in this future, in the belief that we can usefully contribute to national and provincial growth. Our confidence is based on the strengths of our people and our resources, tested over ten years, which I believe will enable us to adapt to changing conditions and enhance your Company's worth. We look forward to years of progress.

During the past year the loyalty and efforts of our employees have made the operating effectiveness of the Company possible and I take pleasure in joining with shareholders in thanking them for helping the organization to achieve its aims and aspirations.

On behalf of the Board of Directors,



# General Manager's Summary of Operations

The President and Directors, Denison Mines Limited, 4 King Street West, Toronto 1, Ontario.

#### Gentlemen:

Your Company now faces a dynamic, rapidly developing international market environment in which the advantages, economies and advancing technology of nuclear fuel for the generation of electric power have achieved recognition at a pace surpassing expectations.

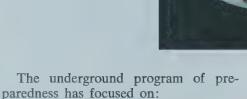
#### CHALLENGE AND RESPONSE

This has posed new challenges for uranium producers. Basically, these challenges are:

- ---to produce and sell uranium at prices profitable to the producer, advantageous to the consumer and moderate enough to encourage the continuing vigorous growth of nuclear power.
- —to develop uranium ore reserves in time to meet and satisfy rising future demands.
- —to intensify the search for new orebodies.

Your Company's program of preparedness, designed to meet these challenges, was strengthened this year and much of our effort centred on our most important asset, the Denison orebody. While 1966 was a year of planning and initiation of projects, 1967 was a year of progress in mine development. Key parts of the program have been accomplished or well advanced in accordance with objectives and with provision of facilities for an expanded future production capability.

Capital expenditures for renewal and improvement of mining and milling facilities and for projects vital to the planned development of the mine amounted to \$2,913,897 during the year.



—the development of improved mining techniques for drilling and breaking ore in the production areas. Encouraging progress can be reported and trials

of specialized equipment are continuing, coupled with wider use of the improved methods as new production areas are developed.

—the loading and transportation of ore to the conveyor network with larger, versatile diesel-powered units designed to offset the space restrictions of underground operations. Several new haulage units have been purchased and are undergoing trials.

—the development of main arteries and sub-arteries in new areas of the mine, serviced by a high capacity conveying system and an underground crusher for the transportation and crushing of ore. Good progress was made on these installations in 1967 and a major part of the system will be in service in early 1968. Extensions will continue in the coming year.

—the excavation of the main artery between the Denison underground workings and the former Can-Met property advanced during the year and will be continued in 1968. This is a major project, well over a mile in length, that will serve as a principal artery for mine development and mine operations.

We are continuing other investigations which give promise of gains in produc-

tivity and operating efficiency, including ore beneficiation methods, bacterial leaching, and improvements in mining equipment. Replacement of older equipment is being done on a planned basis and will be accelerated as the advantages of new equipment, suitable or adaptable to our operations, can be determined. An effective testing program, supplemented by industrial engineering studies, was increased in scope in 1967, and will be continued in 1968.

We recognize that gains in productivity and reductions in operating costs must be sought, not only by investments in new and more efficient equipment but through modifications and refinement of methods and processes using the applied skills and efforts of employees at all levels.

An important part of our response to the challenge of the world market is the expanding search for new orebodies and exploration opportunities for uranium and for other mineral deposits.

In 1967 your Company became a major producer of yttrium oxide which is useful for its contribution to sharply increased colour fidelity in colour television applications. Commercial production began in March with newly-developed technology to which improvements were made during the year. As a by-product, yttrium oxide production is directly related to the uranium milling rate, an important factor in establishing Denison's strong position as a major supplier.

#### NUCLEAR ENERGY OUTLOOK:

The highlight of the year was the contracts entered into with Japanese companies for the supply of  $U_3O_8$  over a long term. Japan, as one of the world's leading industrial nations with limited national resources for electric power generation, will be a major user of uranium and it is estimated that the aggregate demands will be in the order of 100,000 tons of  $U_3O_8$  by 1985.

The projected nuclear generating capacity and the requirements of uranium oxide, annual and cumulative, that were reported last year must now be sharply increased as a result of the rapid growth in announced plans for power plants and world recognition of the economies and advantages of nuclear fuel for power generation. The present expectations are for a nuclear generating capacity exceeding 280,000 megawatts in 1980. Uranium oxide requirements will be approximately 80,000 short tons annually in 1980. Expressed on a cumulative basis the total uranium oxide requirement will be 500,000 tons to 1980. Indeed, several authoritative sources have published higher estimates of expected uranium oxide demand for this period.

The development of this truly dynamic market continues to outpace the forecasts of even the best informed observers.

Denison Mines Limited, with its established orebody of large reserves of uranium coupled with its program of preparedness, can offer real and continuing advantages to those who are willing to work with us, through long-term contracts, on a planned program for expanded production of uranium. The imbalance between supply and demand for uranium fuel that could develop in the early nineteen-seventies now is attracting international attention and concern. There is a growing recognition by industrial consumers that the needed increase in production levels must be stimulated and supported by consumer action as expressed in realistic, but advantageous, price levels and the contracting for supplies well in advance of deliveries. There must be an awareness that it will be the rate at which ore can be mined that will be the key factor in meeting future demand, not simply ore reserve tonnages in the ground. The timely extraction of the ore from the ground in tonnages sufficient to satisfy demand is directly dependent on large capital investments made in advance to develop essential mining and processing facilities. Regrettably there is not yet adequate recognition of the effects of the time factor and production capability

as keys to the economical satisfaction of uranium demand. It should be emphasized that somewhat less than 10% of total power generation costs are attributable to uranium oxide. An increase in the price of uranium oxide by one dollar per pound, for example, would be equivalent to 8/100 mill per kilowatt hour.

Uranium oxide can be expected to remain, even with advancing prices, a truly economical fuel. This, together with advancing reactor technology, will assure the expanding demand forecast by industry observers.

#### PEACEFUL USES:

Although world attention has been centered on the dramatic developments in the application of nuclear fuel for generation of electric power there has been no lack of effort to develop other peaceful uses.

Important examples of major projects are:

#### Desalinization:

In southern California plans are now well advanced for a large dual-purpose, desalinization and electric power plant. The plant, on an island off the coast, will produce 50 million gallons of fresh water daily and 1,600 megawatts of electric power. The ultimate capacity will be 150 million gallons daily, a capacity greater than the total of all other existing desalinization plants.

Constructive Uses of Nuclear Explosives—Plowshare:

The Plowshare program in the United States is a research and development effort to find ways to adapt and control the use of nuclear explosions for peaceful purposes in excavation, natural resources development and scientific research. Of particular interest are plans for applications in natural resources projects with industrial participation. One of these, which took place in December 1967, was Project Gasbuggy, the first government-industry joint experiment for the stimulation of natural gas fields of low productivity in New Mexico. Successful stimulation of natural gas production has such great potential that it is estimated that the increase could exceed all of the present proved U.S. reserves. Two other gas stimulation projects already are scheduled to follow Gasbuggy. Another important example is the recovery of metals from low grade ores — a problem of great interest to the mining industry. Favourable investigations for the recovery of copper using nuclear explosives underground to fracture a low-grade orebody, followed by an in-situ leaching process, have resulted in a proposal by Kennecott Copper Corporation to test this application.

1967 has been a year of progress for your Company and we will continue to improve our readiness and capabilities to meet the challenges of the world market.

Respectfully submitted,





# European Division



In 1965, anticipating the growth of nuclear electric power abroad, your Company opened an office in Europe to maintain close contact with potential purchasers of uranium on the European continent. This market has many distinctive features because of the economic structure and special energy problems of each of the nineteen countries. Each divides the responsibility for uranium supply between government and private organizations differently. The needs, energy resources and rates of growth in electric power consumption differ widely in each country.

An early start was made in Europe on nuclear reactor research and recently, spurred by the remarkable technological development in reactor design and performance in the United States, there has been a very significant strengthening of European research efforts, coupled with an acceleration in the reactor construction program. It is estimated that the installed capacity of reactors on the continent will exceed 103,000 Mwe by 1980 resulting in a cumulative requirement at that time of 170,000 tons of  $U_3O_8$ . The mounting European uranium requirement will be second only to that of the United States.

The uranium reserves of European countries are very limited and only a very small proportion of their needs will be supplied from sources within Europe. It is probable that 130,000 tons of uranium oxide will be needed in the next thirteen years from outside sources. Although the demand will rise rapidly in the 1970's it can be expected that actual deliveries will be on a more level schedule because of time requirements for mining, fuel enrichment and fabrication.

Your Company places great importance on this market and is able to offer European consumers the real advantages of stability in price and supply over a long term. The close association and contact of the European division with potential purchasers has resulted in negotiations for two small contracts which, it is expected, will be completed shortly with private concerns in West Germany. This is a tangible indication of the interest in Canadian uranium that has been developed. We anticipate that the close attention we are giving to this market through our European organization, coupled with the advantages in supply that we can offer, will result in your Company becoming a major uranium supplier of the European market.

# Oil and Gas Division



Growth of the Oil and Gas Division continued at a satisfactory level with increases in both production and reserves. Gross oil production increased 12% to 924,450 barrels for a daily average rate of 2,533 barrels. Gas production totalled 366 MMcf, or an average of one million cubic feet per day.

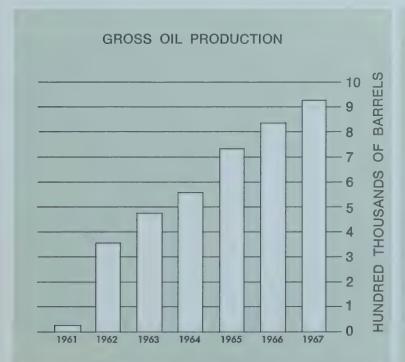
reserves at year end were 25.8 billion cubic feet.

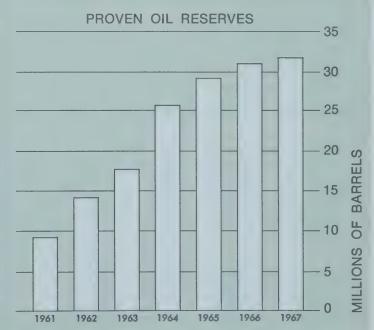
Income during the year increased \$367,000 to \$1,884,000.

One lease was unitized during the year. It is expected that during 1968

Based on current rates of production, our proven crude oil reserves have a life index of 35 years, almost three times the life index of the oil reserves of the United States. We anticipate our crude production to continually increase, even without the expenditure of additional capital funds for new acquisitions.

During the year several geophysical surveys were conducted in the Rainbow-Zama region of Alberta; however, no acreage was acquired at the government of Alberta land sales. Greater activity for 1968 is planned in this and other areas.





Gross proven oil reserves at year end were estimated at 32,388,000 barrels, a 3.5% increase, and probable additional reserves were estimated at 7,758,000 barrels, making the proven and probable additional crude oil reserves total 40,146,000 barrels. Gross proven gas

three more leases will be unitized with a view to instituting enhanced recovery mechanisms. Working interests are now held in 11 units, 10 of which are producing very satisfactorily under waterflood. In addition, your Company owns six other producing leases in other areas.

# Industrial Division

The results of Lake Ontario Cement Limited for 1967 showed that both sales and earnings declined from the previous year. During 1967 Lake Ontario Cement experienced the adverse effects of a series of crippling strikes in the construction industry that greatly reduced its earnings. For a full seventeen weeks, the ready-mix cement industry in the Toronto area was closed down.

Minor production problems that existed at the company plant in Picton have all been satisfactorily resolved.

Lake Ontario Cement Limited's division, Premier Building Materials, continued to increase its market. Additions were made to the ready-mix fleet in the Hamilton and Windsor area. In Toronto a permanent ready-mix plant was constructed on one of the company's properties.

The Toro Road plant location has been expanded to include a consolidated central operations office and fleet maintenance facilities.

Although construction activity was lower in the Windsor area, shipments from our new Windsor cement silos were most encouraging and were valuable in offsetting the effect of various construction strikes in that area.

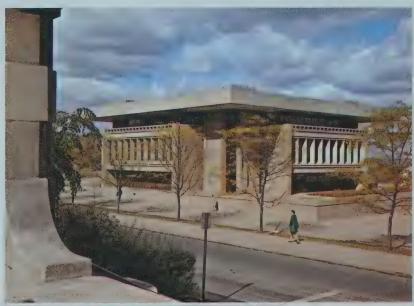
A six week strike at the ready-mix operation in Rochester, N.Y. had no serious effect on operations of Rochester Portland Cement Corp., a wholly-owned subsidiary, because of the character of the growth pattern in that area.

As the expected increase in housing construction begins we expect a general rationalization of the cement market in the Lake Ontario marketing area and we look forward to an improved year for this company.





Stockpiles and processing equipment at the sand and gravel pit of Premier Building Materials division, Alton, Ontario.



Newhouse Communications Center, Syracuse University, New York cement supplied by Lake Ontario Cement's subsidiary Rochester Portland Cement Corp.















# Exploration Division



The Exploration Division maintains bases located in Toronto, Elliot Lake, Vancouver, Denver and Limerick, Ireland, in order to provide broad exposure for your Company to mineral deposits with possible economic potential. Although the present emphasis is on Canada, the United States and Ireland, possibilities elsewhere in the world, particularly for uranium, are under continued surveillance.

It has been a particularly active year in uranium exploration in the United States. Working out of the Denver office, the geological staff of our subsidiary has been active in all the principal uranium areas in the Western States. Mineral rights have been acquired in five target areas in Colorado, two in Montana and one in Wyoming. Programs to investigate the potential of these areas will be under way in the coming year. Work was continued in the Tallahassee Creek area of Colorado, where an option was taken in 1966 on the mineral rights of an area of approximately six square miles adjacent to a formerly producing uranium mine.

As part of a long term exploration plan in the Blind River-Elliot Lake area of Ontario, a large number of claims in several groups have been acquired. A systematic program to investigate these substantial holdings has been initiated by a geological team based at Elliot Lake. In the Agnew Lake area of Ontario a group of claims belonging to Consolidated Montclerg Limited was optioned and additional ground acquired by staking. Field work preliminary to drilling has been carried out on these properties.

Uranium occurrences in a number of other areas of Canada and the United States were investigated. Other countries were also under consideration and negotiations are in progress for prospecting rights over a large area in one.

In Ireland diamond drilling continued on the copper-silver property located in the Vale of Aherlow. 'Diamond drilling and other work has disclosed the presence of copper-silver mineralization in a favourable geological environment over substantial areas. A number of intersections with ore grade potential have been obtained in the drilling. However, further studies of these results and possibly more drilling may be necessary before the economic possibilities of this prospect can be determined. In the Lough Corrib area, reconnaissance sampling and geological work are in progress on two prospecting licenses obtained in 1966.

During the latter part of the year six prospecting licenses for copper covering a forty-two square mile area in Jamaica were obtained. Field work, including a geochemical survey, was commenced in December.

A ten-year exploration permit, 28.5 square miles in area, was obtained to cover the iron deposit in Northern Quebec on which work in 1966 disclosed a potential reserve of substantial proportions. The deposit had been held initially in the form of mineral claims.

Your company continued its participation in Coranex Ltd. with four other Canadian mining companies. Coranex is conducting an exploration program in British Columbia and the Yukon.

Several of our affiliated companies are active in exploration in Ireland, the United States, Ontario and Quebec.

Uranium exploration has become the major part of the activities of the Exploration Division and this emphasis will be maintained on a broad geographic scale. However, interest will also be continued in other mineral commodities in conformity with the objectives of your Company.

# Mine Manager's Report

The Vice-President and General Manager, Denison Mines Limited, 4 King Street West, Toronto 1, Ontario.

The following report is a summary of operations at the Denison Mines Limited, Mining Division at Elliot Lake, Ontario, for the fiscal year ended December 31, 1967.

Shaft area were retired after handling over 3,000,000 tons since 1958. The limited production from this area now is conveyed a shorter distance to No. 2 Shaft.

A concentrated effort is being made to complete mining operations in the north-east area of the mine now served by No. 1 Shaft. This will improve the effectiveness of the mine ventilation program and allow earlier discontinuance of an older conveyor route.

Development work is being pressed at several horizons east of the new Axis "B" conveyor system to prepare panels for mining in the northern section of the mine. Two additional conveyorways and asso-

ment planned for the block of ore lying down-dip in this area. In addition, a new heading is being driven westward for exploration of the area served by No. 2 Shaft.

The total tonnage of ore broken was increased to 1,329,106 tons while the waste tonnage broken increased to 67,166 tons because of the extensive conveyorway program. A total of 1,220,609 tons of ore was hoisted with No. 1 Shaft providing 859,692 tons. The remaining 360,917 tons were supplied by No. 2 Shaft. The ore hoisted for the period assayed 3.07 pounds of U<sub>3</sub>O<sub>8</sub> per ton. A total of 14,462 tons of waste rock was hoisted at No. 2 Shaft and crushed to provide road-building material for underground and surface roadways. The heading advance increased to 35,576 feet from the 28,648 feet reported last year. Developed ore reserves accessible from existing haulageways increased to 3,800,000 tons from 3,200,000 tons.

Major capital expenditures have been incurred to provide for the new conveyor system and crushing plant which has a designed capacity of 12,000 tons per day, and for low profile, high-capacity trackless equipment. The mining methods are being modified to take advantage of this equipment to increase productivity. A high speed service roadway has been provided from No. 2 Shaft to the Axis "B" conveyor system and the garage facilities have been expanded to centralize our underground maintenance functions.



All activities at the property were centred on preparing the mining and milling facilities to meet the challenges of increased production and higher costs for labour, materials, supplies and services.

The unit record accounting and cost control system which has served the operation since 1959 was improved during the year with an IBM System 360, Model 20 Computer to provide additional management controls.

#### **MINING**

Mine production was increased during the year from the two main areas northeast and southwest of No. 1 Shaft which are serviced by existing conveyors. The conveyors from the southwest section of No. 1 ciated ore passes were driven to complete the new 7,000-foot transportation artery which will consist of four flights of descending conveyors, a crushing plant and a 3,000-foot transfer conveyor to No. 2 Shaft. The crushing plant and transfer conveyor are presently in operation and it is expected that all the conveyors to the north will be ready early in 1968.

The 6,200-foot drive to the east, which was started last year to join with the Can-Met underground workings, advanced a total of 2,200 feet. This heading is being driven on line from the new crushing plant to provide for future conveyorways.

A new conveyorway, extending south from the new crusher location, was begun in 1967. This will be part of the develop-

### MILLING

A total of 1,219,461 tons of ore was treated for a daily average of 3,416 tons in contrast with a total of 981,709 tons and 2,922 tons daily in 1966.

The installation of a new circuit to recover yttrium as a by-product of the uranium process was completed during the year. Initial production was a low-grade precipitate which has since been upgraded by modifying the circuit with the addition of a liquid-to-liquid separation phase. A high-grade product is now being shipped, and research will be carried out to test the possibility of separating individual rare earths.

Cyclones have been put on stream to relieve the load on the washing thickeners, and automatic control of this section of the circuit will begin in 1968.

A pilot plant run and several tests were carried out in research laboratories to test the feasibility of upgrading the mill feed for expanded production requirements. Research into improved leaching conditions is continuing and a pilot plant has been installed for conducting solvent extraction tests to upgrade the uranium precipitate and reduce the reagent costs.

The analytical laboratory was expanded to accommodate the x-ray fluorescence spectrographic system which was delivered early in the year. This automated equipment is performing analyses which could not otherwise be determined accurately and routine process control work is now being done in a fraction of the time formerly required.

#### SAFETY

The year 1967 ended with the operation recording the best safety performance in its history. The compensable injury frequency was reduced to 13.8 from 23.1 per million man-hours the previous year, which ranks The Denison Mine as one of the safest in Canada. This record exemplifies the outstanding cooperation existing between employees and supervisors.

The Denison Mine Rescue Teams placed first and second in the District Competition and the winning team went on to the Ontario Competition and became All-Ontario Champions in Mine Rescue for 1967. This is the second time in three years that the coveted award has been won by a Denison team.

A Denison team placed second in the competition for the McCrea Trophy which is awarded for excellence in First Aid in the mining industry of Ontario.

#### **EMPLOYEES and COMMUNITY**

Effective October 16, 1967, all hourly employees received a general wage increase as provided under the Agreement which expires November 30, 1968. The Office-Technical Unit employees also received an increase, which is related to that given to hourly employees. Relations with employees and the Community remained on a high level. An additional 127 employees were recognized for their 10 years of service with the Company during the period.

Three Denison scholarships were awarded this year to graduates of the Elliot Lake Secondary School who have enrolled in Canadian universities.

The "Nucleus", a bi-monthly publication for our employees, was given a new look

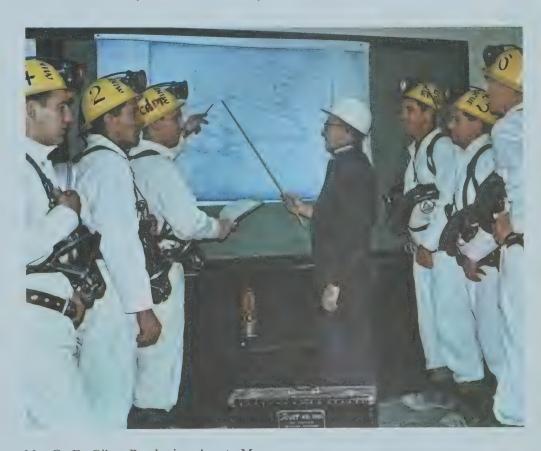
and continues to maintain a high reader interest. Several of the articles have been reprinted in other employee-oriented publications.

#### **ACKNOWLEDGMENTS**

The accomplishments during the year are a reflection of the efforts put forth by the department heads, their staff and employees. I would specifically call to your attention the dedication of:

Mr. C. H. Frame, Assistant Mine Manager; Mr. J. A. Abramo, Mill Superintendent; Mr. D. Laschuk, Chief Engineer; Mr. N. E. Gillick, Master Mechanic; Mr. J. P. Reszel, Mine Accountant;

The Denison Mines Rescue Team
All-Ontario Champion
for 1967



Mr. G. E. Giles, Purchasing Agent; Mr. V. Capeless, Electrical Superintendent; Mr. C. B. Banks, Personnel Manager; Mr. R. J. Gunning, Mine Geologist and Mr. G. L. Hammond, Safety Director.

The continued confidence, support and guidance of the Executive Officers of the Company is greatly appreciated.

Respectfully submitted,

M. J. de BASTIANI,
Mine Manager.

January 11th, 1968, Elliot Lake, Ontario.



# TEN YEAR SUMMARY

	Tons Milled	Average Grade (lbs U <sub>3</sub> O <sub>8</sub> per ton)	Pounds U <sub>3</sub> O <sub>8</sub> Produced (000°s of lbs.)	Oil and Gas Income (in 000's \$)	Net Profit per Share	Equity per Share	Net Profit (in 000's \$)	Depreciation and Depletion (in 000's \$)
1967	1,220	3.07	3,549	1,884	2.21	16.67	9,905	628
1966	982	2.86	2,749	1,517	1.90	15.51	8,488	410
1965	889	2.93	2,561	1,375	2.55	15.11	11,417	509
1964	1,275	3.14	3,950	1,036	1.58	14.06	7,087	482
1963	1,587	3.34	5,079	864	2.10	13.50	9,404	577
1962	1,829	2.88	4,844	612	2.28	12.53	10,177	11,837
1961	2,033	2.85	5,379	14	3.16	11.30	14,130	16,851
1960	2,014	2.70	4,912		3.38	9.26	15,124	13,816
1959	2,046	2.56	4,916		4.02	6.91	17,898	8,224
1958	1,861	2.46	4,240		2.14	2.82	9,556	7,802

# Consolidated Statement of Operations FOR THE YEAR ENDED DECEMBER 31, 1967

Profit before items shown below	\$ 4,740,307	\$ 4,859,245
Revenue from investments	5,272,288	2,852,059
	\$10,012,595	\$ 7,711,30
DEDUCT:		
Provision for Ontario mining tax	\$ 100,000 628,024	\$ 70,000 410,23
	\$ 728,024	\$ 480,23
	\$ 9,284,571	\$ 7,231,06
Profit on sales of fixed assets	\$ 10,033	\$ 462,752
Share of net earnings of the unconsolidated subsidiary	\$ 610,744	\$ 793,719
Net profit for the year	\$ 9,905,348	\$ 8,487,538

# Consolidated Statement of Earned Surplus

FOR THE YEAR ENDED DECEMBER 31, 1967

	1967	1966
Balance at beginning of year	\$61,335,742	\$ 59,560,258
Net profit for the year Anna Profit for the year	9,905,348	8,487,538
	\$71,241,090	\$ 68,047,796
Dividends	4,698,438	6,712,054
Balance at end of year	\$66,542,652	\$ 61,335,742
		ANA ANA ANA ANA

# Consolidated Statement of Source and Application of Funds

FOR THE YEAR ENDED DECEMBER 31, 1967

FUNDS OBTAINED FROM:	1967	1966
Current operations — excluding share of net earnings of the unconsolidated subsidiary Debentures of unconsolidated subsidiary Investment in other companies Mortgages and other secured loans	\$ 9,912,595 200,000 4,427,298 142,925	\$ 7,641,304 200,000 (27,029,279) 955,794
FUNDS APPLIED TO:	\$14,682,818	\$(18,232,181)
Addition to property, plant and equipment of \$4,734,606 (1966 \$5,021,474) less proceeds of disposals Investment in shares of unconsolidated subsidiary Special refundable tax Concentrates held for sale Dividends declared	\$ 4,722,302 	\$ 4,558,722 799,613 116,691 (327,748) 6,712,054 \$ 11,859,332
Increase (decrease) in working capital	\$ 3,740,791	\$(30,091,513)

### OTHER INVESTMENTS

iNDUSTRIAL DIVISION
Cement, Cement Products and Distribution
— Land Development Projects —

DENHAY HOLDINGS LIMITED 400 Acre Property Oakville, Ontario

LAKE ONTARIO CEMENT LIMITED

Cement Manufacturing and Distribution
Picton, Ontario

ROCHESTER PORTLAND CEMENT CORP.
Mohawk Valley Cement and Cayuga
Cement Divisions
Rochester, Rome and Ithaca, N.Y., U.S.A.

PREMIER BUILDING MATERIALS DIVISION Ready-Mix Plants Toronto and Hamilton Sand and Gravel Pit

PRIMEAU ARGO BLOCK CO., LIMITED
Concrete Block Manufacturers
Stone Quarry and Producer of Sawn Stone
Five Plants — Metropolitan Toronto Area

RYAN BUILDERS SUPPLIES LIMITED

Manufacturer and Supplier of Ready-Mix Concrete
Concrete Block, Prestressed Concrete Shapes
and Building Supplies
Windsor, Ontario

Investments in other companies continued to stress the natural resource industries in North America.

International Mining Corporation in which your company has a substantial investment is a widely diversified company itself. Besides its large holdings in Molybdenum Corporation of America which is continuing to expand its production, International Mining has experienced a substantial gain in the value of its large holdings in Brazilian Light and Power Limited. Profitability in International Mining has increased through the restructuring of its portfolio investments and we expect continuation of profits through the next year.

Mogul Mines Limited's subsidiary, Mogul of Ireland Limited, is on schedule in its construction program for production in the first quarter of 1968. This lead-zinc-silver mine-mill complex is expected to operate at 3,000 tons per day in early 1968.

Midepsa Industries Limited's phosphate and potash property in Peru was of sufficient interest to Kaiser Aluminum & Chemical Corporation, San Francisco to give Midepsa 10,000 shares of Kaiser for an option to put the Peruvian property into production at a rate of no less than 2,000,000 tons per year. No financial commitments would be placed on Midepsa unless the project went to a capacity exceeding 3,000,000 tons per year under the terms of the option. Midepsa would also share in the marketing and shipping subsidiaries to be set up. Definitive engineering plans are being reviewed, revised and costed by Kaiser before a firm decision is made on the option.

Canada Cement is passing through a short term period of difficulty due to the decline of business in the Montreal area caused by the cessation of construction of facilities for EXPO '67. Other competitive conditions in the Montreal area have diminished the profitability in that area. The nation-wide position of Canada Cement has allowed this company to continue to operate at a profit. Housing in Canada is under considerable pressure due to Canada's burgeoning population. Initially this pressure has been felt in the increase in prices in the secondary housing market. As these price adjustments have been made it is expected that the economics of housing will cause increased production of new housing in 1968. We expect a beginning of the reversal of the downtrend in 1968 and our estimates of construction activity are optimistic.



#### MINING DIVISION

Uranium Producing Mine
Mining Exploration and Development Projects

DENISON MINES (EUROPEAN) LIMITED Uranium Marketing and Business Investments Paris, France

#### THE DENISON MINE

Uranium, Yttrium and Rare Earths World's Largest Uranium Mine and Mill

#### OIL AND GAS DIVISION

**EXPLORATION DIVISION** FULL Geological, Exploration Planning
Services and Syndicates
Offices: Elliot Lake, Toronto, Ont.; Vancouver, B.C.;
Limerick County, Ireland

Producing Oil and Gas Wells Alberta and British Columbia

#### CANADA CEMENT COMPANY LIMITED

Nine Plants In Six Provinces Cement, Crushed Stone, Ready-Mix Concrete, Paving and Building Materials

CONCORD FINANCE CORPORATION LIMITED Financing Toronto, Ontario

INTERNATIONAL MINING CORPORATION
Diversified Mining and Investment
Interests Throughout North, Central
and South America

### DENISON MINES (U.S.) INCORPORATED

Exploration for Uranium and Other Minerals Denver, Colorado

## CONSOLIDATED MOGUL MINES LIMITED

Lead-Zinc-Silver Mine and Mill Development Through Subsidiary Production Planned for 1968 Ireland

#### BLACK HAWK MINING LTD.

Zinc, Copper, Lead, Silver Development Project Blue Hill, Maine, USA

VESPAR MINES LIMITED

Copper, Nickel Exploration Project Gaspe, Quebec

MIDEPSA INDUSTRIES LIMITED

Phosphate — Potash Development Project Sechura Desert, Peru

#### ARGOSY MINING CORPORATION LIMITED

Copper Exploration Project Nevada, USA; Ireland

GOLDRAY MINES LIMITED
Columbium, Uranium and Base Metals
Exploration Project
Ontario, Manitoba and Saskatchewan

#### LAKEHEAD MINES LIMITED

Copper, Iron, Nickel Exploration Project Northwestern Ontario

# DENISON MINES LIMITED AND ITS SUBSIDIARIES

## CONSOLIDATED BALANCE SHEET

AS AT DECEMBER 31, 1967

ASSETS
Current Assets
Cash in banks
Time deposits  Marketable securities — at or below cost (quoted market value \$13,495,134, 1966 \$5,220,015)  Accounts receivable including concentrate settlements
Supplies and prepaid expenses  Mortgages and other secured loans including \$200,000 (1966 \$200,000) from the unconsolidated subsidiary
Special refundable tax
Investment in Other Companies — at cost
Shares — including shares costing \$26,594,554 with a quoted market value of \$28,241,631 (1966 \$31,188,847 and \$30,085,631 respectively)
Bonds and debentures
Mortgages and other secured loans, not including amounts shown above
INVESTMENT IN UNCONSOLIDATED SUBSIDIARY — LAKE ONTARIO CEMENT LIMITED
Shares — costing \$6,341,298 with a quoted market value of \$8,776,121 (1966 \$6,341,298 and \$10,392,773 respectively)  Debenture
Description of the control of the co
Concentrates held for sale — at cost
Property, plant and equipment at cost less accumulated depreciation and depletion of \$47,004,684 (1966 \$46,862,975)
LIABILITIES
CURRENT LIABILITIES
Bank loan — secured Loan — secured
Accounts payable and accrued charges
Dividends payable Provision for Ontario mining tax
Shareholders' Equity
Capital Stock
Authorized:
6,000,000 shares of \$1.00 par value each Issued and fully paid:
4,474,703 shares
Earned surplus Contributed surplus

Signed on behalf of the Board:

GEORGE A. DREW, Director.

J. WILSON BERRY, Director.



	1967	1966		
	1907	1900		
	\$ 597,907	\$ 605,171		
	4,320,000			
	13,133,488 2,478,624	5,847,774		
	1,050,443	1,287,771 1,034,484		
	695,476	930,769		
	\$22,275,938	\$ 9,705,969		
	\$ 160,903	\$ 116,691		
	4 100,703	4 110,001		
		I was a second		
	\$27,230,673	\$31,682,346		
* * * * * * * * * * * *	4,361,625	4,337,250		
	\$31,592,298	\$36,019,596		
	\$ 8,391,420	\$ 8,534,345		
	\$ 9,828,328	\$ 9,217,584		
	200,000	400,000		
	\$10,028,328	\$ 9,617,584		
	\$ 5,097,300	\$ 3,620,225		
	\$20,900,666	\$16,796,355		
	\$98,446,853	\$84,410,765		
	\$16 100 000	\$10,200,000		
	\$16,100,000 4,320,000	\$10,200,000 —		
	2,929,250	3,041,953		
	318,454	1,696,573		
	171,662	71,662		
	\$23,839,366	\$15,010,188		
11				
	\$ 4,474,703	\$ 4,474,703		
********	66,542,652	61,335,742		
	3,590,132	3,590,132		
	\$74,607,487	\$69,400,577		
	\$98,446,853	\$84,410,765		
		Ψοτ, τιο, του		

ements and should be read in conjunction therewith.

## **AUDITORS' REPORT**

To the Shareholders, Denison Mines Limited.

We have examined the consolidated balance sheet of Denison Mines Limited and its subsidiaries as at December 31, 1967 and the consolidated statements of operations, earned surplus and source and application of funds for the year then ended. Our examination of the financial statements of Denison Mines Limited and those subsidiaries of which we are the auditors included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances. We have relied on the reports of the auditors who have examined the financial statements of the other subsidiaries.

The report of the auditors of one of the subsidiaries is qualified to the extent that they have been unable to obtain confirmation of the sum of \$5,346,078 as described in Note 2 to the consolidated financial statements.

In our opinion, subject to the qualification referred to above and the allegation of indebtedness referred to in Note 2, these consolidated financial statements present fairly the financial position of the companies as at December 31, 1967 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

EDDIS & ASSOCIATES,
Chartered Accountants.

Toronto, Canada, January 11, 1968.

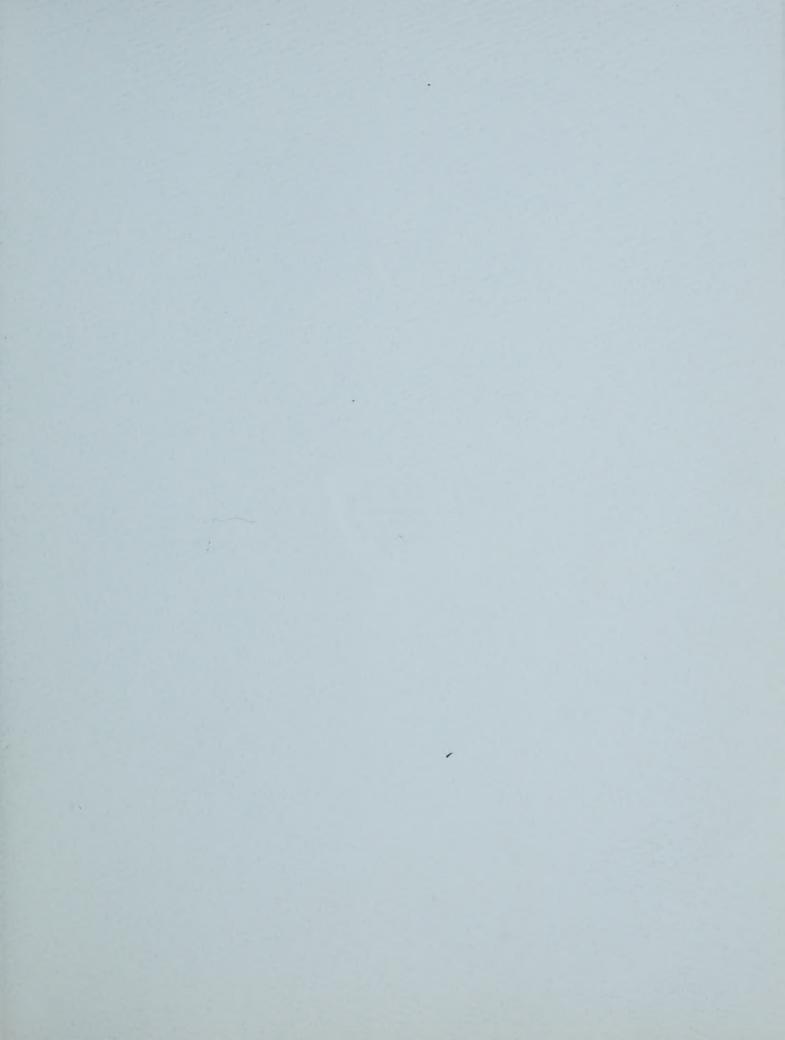
# Notes to Consolidated Financial Statements

December 31, 1967

- 1. The consolidated financial statements include the accounts of all subsidiary companies and the results of their operations for the year, except that the accounts of Lake Ontario Cement Limited (partly owned) and its subsidiaries are excluded. The invest-ment in shares of Lake Ontario Cement Limited is stated in the consolidated balance sheet at cost plus the company's share of consolidated earnings of such subsidiary since control was acquired which share, insofar as it related to the current year, is included in the consolidated statement of operations. In the company's view, this method provides the most effective form of presentation of its financial condition.
- Mortgages and other secured loans due within one year are included in current assets except for the sum of \$5,346,078 owing by or guaranteed by a director and payable not later than February 15, 1968. The company has the right to apply against such sum certain payments of commission in respect of certain agreements that may be entered into on or before June 30, 1970 for the sale of uranium concentrates by the company. The company (through a subsidiary) also holds an option to purchase a sand and gravel deposit located near Paris, France, the consideration for which may be satisfied in whole or in part by the application, after obtaining the necessary French exchange control approval, of any amounts owing by or guaranteed by such director at the date of exercise of the option. The director referred to above, in response to a request for confirmation of the obligations owing by or guaranteed by him as at December 31, 1967, alleged that the company is indebted to him for remuneration due him to December 31, 1967 in an unstated amount, which might be less than, equal to, or greater than the obligations owing by or guaranteed by him. The company has repudiated such allegation and takes the position that such director has only the right, under an agreement in writing entered into by him with the company, to receive a commission of 3% of the sale price of certain uraninum sold by the company and that no sales have yet been made by the company in respect of which such director is entitled to such commission. The agreement referred to above provides that the company is

- not obligated to pay any of his expenses and that its only obligation to him is such commission, if such commission becomes payable. In the opinion of counsel there is no obligation of the company to such director as alleged by him and accordingly the company has made no provision in its accounts for the indebtedness alleged by such director.
- 3. Included in mortgages and other secured loans is an amount of \$2,666,625 in respect of 61/2 % Series A, Black Hawk Mining Ltd. debentures (face value \$2,735,000) due June 30, 1974 which is secured by the assets of that company and its wholly-owned sub-sidiary. The security is principally represented by an orebody in Hancock County, Maine, U.S.A. on which extensive development work has been done. The property is presently on a stand-by basis until economic and other conditions are more favourable for production of copper and zinc ores. Interest accrued on these debentures from January 1, 1967 will be taken into revenue when payment is received.
- 4. Development expenditures made after 1965 for the purpose of preparing mining areas beyond current requirements have been deferred at December 31, 1967 and will be written off in an appropriate manner when such areas are brought into production. Petroleum and natural gas lease acquisition costs and development expenditures are amortized on the unit of production method based on estimated reserves. Plant and equipment at the company's mine properties acquired before 1965 was written off in prior years; subsequent additions and all other plant and equipment of the companies are being depreciated over their estimated useful lives.
- 5. Provision for Ontario mining tax has been made in this and prior years in accordance with the bases on which the company was assessed for 1963 and prior years. It is possible that a reduction of such provision for tax may result from current procedures before the Ontario Municipal Board.
- 6. The company has received a notice of re-assessment which claims Federal income tax for the year 1961 in the amount of \$2,391,245, plus interest. The principal item in dispute is the disallowance by the tax authorities of expenditures in respect of main haul-

- ageways or similar underground works which were capitalized by the company for tax purposes only. Notice of objection contesting the amount claimed has been filed and in the opinion of special counsel the company should be successful in its appeal. The same issue is applicable to certain years subsequent to 1961, but the liability for income taxes, if any, in respect of such years is indeterminate pending settlement of the 1961 re-assessment. It is estimated, however, that there is no liability for income taxes for the current year because of deductions available for tax purposes. The company has assigned to the Receiver General of Canada, to the extent of any income tax liability as may be finally determined in respect of the year 1961, its rights to receive payment under a contract in which the company has agreed to sell uranium concentrates to Her Majesty represented by Eldorado Mining and Refining Limited.
- 7. The company has guaranteed payment of the liability of a wholly owned subsidiary as endorser of a promissory note now in the amount of \$840,000 of a borrower and holds as security a debenture constituting a first mortgage and floating charge on the assets of the borrower.
- 8. The company is the defendant in an action commenced in the Supreme Court of Ontario in which a royalty of \$750,000 is claimed under an agreement to which one of the companies which amalgamated as the company was a party. The company denied any liability in respect of this claim and after the trial of the action judgement was given in favour of the company. The plaintiff appealed to the Court of Appeal for Ontario and the appeal was dismissed. The plaintiff has appealed further to the Supreme Court of Canada but this appeal has not yet been heard.
- 9. The company is one of the defendants in an action commenced in New York in the Federal Court arising out of the sale in 1965 of the company's investment in General Baking Company in which action a claim for \$2,000,000 (U.S.) out of the sale price is made on behalf of all other stockholders. The court upon motion by the company has limited the class on behalf of whom the action was brought. In the opinion of special counsel the company has a substantial defence to the action.
- 10. Remuneration received by the directors and senior officers in 1967 amounted to \$340,600 from the Company and its consolidated subsidiaries and \$6,600 from the unconsolidated subsidiary.
- 11. Included in revenue from investments is interest of \$24,411 from the unconsolidated subsidiary and net gain on security transactions of which \$3,478,129 is gain realized from the sale of investment in shares of other companies.



10 DES 9 103 to 10 Nort Wallata F - SASIC NEY · ~ 6 ( ) ( & ) ( - ) x 6 use - 6 - 6 . . . Adult Ridfiela arteral ming. x 9 ( e10000 ) Eldural-Rio Regar - Presidents - 1 = 101.251.0 10015 > 200 x 101 suest white x 5011 x 50 10 17 3742 - 6x - 10 1 . 5 - 7 5 x 250 - 160 ( 6 6 ) x 1095(~1) x (v). hx v > 1 71 > 6~> p. 8x · a c a. ( somm v \_ N al 10, sostong - Rio 5,000 x Senestret + cosentini / Derina 1 400,000 Boron." 122 - Blouds l. regul g( ). an Ament x 3.5. 5.5. .9 No. "UM (4.010 4.x") Densin o ontra . en - = 1. + 0 5 0 Adequate » · 5 And - 50 + 5. - PARIS . ~ Not b. - x Q. Co & = 7:10 mg - o h 6 x 96-)c. ~ol x 'go-6' l'exercise , estir-61, 90 - charit . " 90). desets (T. Dx Very definador " He ous. 800 - 52 7 -